



# THE WILDERNESS SOCIETY

Appeal Reviewing Officer, Barbara Timberlake  
USDA Forest Service  
Attn: NFS – EMC Staff  
Stop Code 1104  
1400 Independence Avenue, SW  
Washington, D.C. 20250-1104

October 24, 2002

Dear Appeal Reviewing Officer, Barbara Timberlake:

The Wilderness Society, Alaska Center for the Environment and the National Wildlife Federation are appealing the Church National Forest Revised Land and Resource Management Plan and Final Environmental Impact Statement approved by Mr. Dennis Bschor, Regional Forester, in a Record of Decision dated May 31, 2002. Legal notice of the Revised Plan was published on July 26, 2002. See 67 Fed. Reg. 48894 (July 26, 2002). Enclosed is our appeal.

Sincerely,

Nicole Whittington-Evans  
Assistant Regional Director

ALASKA REGION

430 WEST 7TH AVENUE, ANCHORAGE, AK 99501

TEL. (907) 272-9453 FAX (907) 272-1670

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October 24, 2002

Dear Appeal Reviewing Officer, Barbara Timberlake:

**Notice of Administrative Appeal of the Chugach National Forest Revised  
Land and Resource Management Plan and Final Environmental Impact  
Statement**

Dear Ms. Timberlake and NFS – EMC Staff,

Pursuant to the Forest Service Regulations contained in 36 C.F.R. part 217, The Wilderness Society, Alaska Center for the Environment and National Wildlife Federation submit the following administrative appeal of the Chugach National Forest Revised Land and Resource Management Plan (Revised Plan) and Final Environmental Impact Statement (FEIS) issued by Dennis Bschor, Regional Forester, and published on July 26, 2002. See 67 Fed. Reg. 48894 (July 26, 2002).

This appeal concerns the following decisions of the Forest Service in promulgating the Revised Plan: 1) The ROD is inconsistent with the FEIS and thus the Forest Service failed to disclose the impacts of the final plan; 2) The Wilderness and Roadless analysis is flawed; 3) Management Prescriptions do not protect wilderness values; 4) The reduction of wilderness recommendations is arbitrary and capricious; 5) The wilderness recommendations do not sufficiently protect the broad range of ecological values and areas of the Forest, and violate the Wilderness Act; 6) The Wild and Scenic Rivers eligibility review and recommendations are flawed and inadequate; 7) The FEIS contains serious inconsistencies regarding the impacts to roadless areas of the Final Plan; 8) The Forest Service conclusion that the Carbon Mountain Road is an acceptable development while no adequate EIS has been completed is arbitrary and capricious; 9) The effects analysis regarding motorized uses is flawed and insufficient; 10) A management direction bias exists favoring winter motorized uses; 11) The Forest Service is misleading the public regarding motorized uses in the Wilderness Study Area (WSA) and Recommended Wilderness areas; 12) The Forest Service has failed to sufficiently address air quality issues related to motorized uses; 13) The Forest Service has not proposed to implement sufficient conservation measures for the Kenai Peninsula brown bear population, a state species of special concern, and the environmental effects analysis in the FEIS regarding brown bears is flawed; 14) The FEIS does not analyze potential impacts to brown bears from widespread motorized uses on the Forest, both winter and summer, and increased access on the Forest; 15) Changes in the Prescriptions from the DEIS to the FEIS to the ROD result in significant discrepancies, and the FEIS does not sufficiently analyze these changes from the FEIS to the ROD; 16) The Forest Service incorrectly defines

“traditional activities” as per Sec. 1110A of the Alaska National Interest Lands Conservation Act (ANILCA) disregarding Congress’ intent; and 17) The Final Plan is deficient because it does not address management of the waters, including submerged lands, within the Chugach National Forest boundary. We want to incorporate by way of reference the appeals submitted by Trustees for Alaska, Alaska Center for the Environment, Alaska Quiet Rights Coalition and Alaska Audubon.

**Appellants:**

The Wilderness Society, 430 West 7<sup>th</sup> Ave., Suite #210  
Anchorage, AK 99501

Nicole Whittington-Evans, Assistant Regional Director, Alaska (907) 272-9453

Alaska Center for the Environment, 519 West 8<sup>th</sup> Avenue, #201  
Anchorage, AK 99501, Randy Virgin, Executive Director (907) 274-3621

National Wildlife Federation, 750 W. Second Avenue, Suite 200,  
Anchorage, Alaska 99501, Anthony Turrini, Director of the Alaska Office

The Wilderness Society (TWS), founded in 1935, is a non-profit membership organization devoted to preserving wilderness and wildlife, protecting America's prime forests, parks, rivers, deserts, and shorelines, and fostering an American land ethic. With 186,000 members nationwide, TWS has approximately 660 members in Alaska, many of whom use the Chugach National Forest and are concerned about the management of its natural resources and roadless areas.

Alaska Center for the Environment (ACE) is one of the largest grass-roots conservation organizations in Alaska, representing a membership of over 8,000 individuals, many of whom recreate, fish and hunt within the forests of the Chugach. Membership includes individuals from throughout Alaska.

National Wildlife Federation is a non-profit corporation organized and existing under the laws of the District of Columbia with its main office in Reston, Virginia, and 10 regional field offices, including one in Anchorage, Alaska. It is a national conservation organization with approximately one million members. NWF works to educate, inspire, and assist persons and entities of diverse cultures to conserve natural resources and protect the Earth's environment.

**I. Background:**

The final decision for the Chugach National Forest Land Management Plan marked the end of a five-year public process, which was the most open planning process the Forest Service has ever undertaken. During the first three years of the process, the public was involved almost every step of the way. This yielded more public comment than any previous comment period during a single planning process on our nation's forests. The Forest Service received more than 30,000 comments on the Chugach, over 90% of which supported wilderness in all three regions of the forest, including 96% for the Copper

River Delta. Public comment also included members of the public creating twenty different GIS-based alternatives, which the Forest Service incorporated into their Draft Environmental Impact Statement (DEIS) Alternatives.

## **II. Discrepancies and Impacts of the Final Plan:**

While the Chugach Forest Planning process yielded much public involvement and comment, the Final Plan does not reflect an open public process. Rather, the final plan is an example of final-hour political maneuvering from individuals outside of Alaska and within the Bush Administration who hijacked a plan that was otherwise part of a legitimate public process. This is evident, for example, from the substantial changes that occurred between the Final Environmental Impact Statement (FEIS) and the Revised Land and Resource Management Plan (RLRMP).

Examples of the discrepancies between the FEIS and the RLRMP, include, among others: 1) the environmental effects analysis in the FEIS regarding brown bears on the Kenai Peninsula which is based on a Brown Bear Core prescription that does not allow utility corridors, when, in fact, the RLRMP Brown Bear Core prescription does allow utility corridors; 2) a glaring inconsistency in the recommendations for wilderness designation between the Record of Decision (ROD) and the FEIS; and 3) the merging of the Backcountry Non-motorized and Backcountry Motorized prescriptions which now allows day use lodges and group sizes of 100 throughout the Forest without any environmental effects analysis. A more detailed discussion of these changes is in corresponding sections below.

The Forest Service must prepare a supplemental EIS to address the impacts of the RLRMP in light of all the changes made between the draft and final EISs, and then again between the final EIS and the RLRMP. The Regional Forester made significant changes in the Wilderness recommendations, the management prescriptions, the Brown Bear Core Area, the motorized use policies, and other components of the plan. These changes require a supplemental EIS for at least two reasons.

First, the public was not on notice that the Forest Service was considering a plan that looked anything like the ultimate RLRMP and therefore had no opportunity to address this plan in comments. None of the alternatives in the draft EIS resembled the plan that was ultimately adopted. If we had known that the Forest Service was considering this alternative, we would have addressed it in our comments, but we did not have that opportunity. NEPA requires agencies to prepare supplemental EISs when they make such significant changes after a draft EIS.

Second, neither the draft nor final EIS discloses the impacts of the RLRMP. NEPA requires agencies to prepare EIS's that disclose the direct and cumulative impacts of the agency's action. Because the RLRMP departs so significantly from any of the alternatives considered in either the draft or final EISs, it is impossible to ascertain the impacts of the plan on the human environment.

## **III. Wilderness:**

## **A. Overview**

Considering the many years of planning and extraordinary public involvement in this effort, the wilderness reviews, evaluations, and recommendations contained in the Chugach National Forest Revised Land and Resource Management Plan (Plan), Final Environmental Impact Statement (FEIS) of May 31, 2002, and the Record of Decision (ROD) are extremely disappointing and seriously flawed. Despite the Forest Service's acknowledgment that all 5,434,710 acres of 99% of the roadless lands on the Chugach are suitable and qualify for Wilderness designation, the agency then systematically ignores those values in favor of non-wilderness uses and development in its Plan recommendations. The agency's wilderness recommendations for the College Fiord-Nellie Juan Wilderness Study Area in the Prince William Sound Region of the forest are scaled-back from the last plan. In 1984, the Reagan Administration recommended approximately 1.7 million acres for wilderness in both the Nellie Juan/College Fiord Wilderness Study Area and in one area on the Kenai Peninsula, while the Revised Forest Plan only recommends approximately 1.4 million acres in the Wilderness Study Area. The Forest Service does not recommend any wilderness in the Kenai Peninsula or Copper River Delta regions of the forest despite the demonstrated values in both areas, the need to protect them, and significant public support to protect these areas as wilderness. We hereby appeal those results because they are deficient and inadequate to the requirements for such wilderness reviews and evaluations under the National Forest Management Act (NFMA), the National Environmental Policy Act (NEPA), the Administrative Procedures Act (APA), and the Wilderness Act (WA). By reference here, we wish to incorporate into our appeal the separate appeal filing on our behalf by Trustees for Alaska, which addresses these specific legal issues in more detail.

With the majority of comments on this planning process consistently supporting significant Wilderness recommendations across all reaches of the Chugach National Forest, the Forest Service has walked away from the clear evidence of the wilderness values on the Chugach and the body of public support for its designation and protection. While acknowledging that the Chugach National Forest is 99% roadless, making it our wildest national forest in the whole system, the Forest Service then proceeds to structure the Plan and FEIS in such a manner as to favor conversion of this unique wilderness forest to non-wilderness uses and development.

In proposing to administratively foreclose wilderness on the majority of the Chugach National Forest roadless lands, the Forest Service has raised this Plan and FEIS to an unprecedented level of notoriety in flawed land management planning. It is an extraordinary denial of the wilderness values of the Chugach National Forest. Such a sweeping allocation of roadless lands to non-wilderness uses and development by a federal agency is one of the very reasons that Congress passed the Wilderness Act in 1964. Such a sweeping decision should not be made administratively as the Forest Service proposes to do for this Plan, but should rightly be made by Congress in the context of the unique wilderness values of this forest and the broad citizen support for their protection. The Forest Service has missed an opportunity to set a high standard for protection of wilderness.

### **B. Analysis Process in Plan and FEIS Structure is Flawed**

The evaluations of the Plan and FEIS are structured around an analytic framework of four main areas of analysis: Wildlife Analysis, Recreation Analysis, Timber Resource Analysis, and Economic Analysis. This planning framework is the major evaluation of the Plan and the FEIS and examines these four areas in depth (see FEIS Appendix B – Description of the Analysis Process).

While roadless areas and wilderness are evaluated separately (see FEIS Appendix C – Roadless Areas) the results are illusory in that they are not given full weight in the Appendix B analytic framework that forms the basis of evaluating the whole plan and making resource allocation decisions. Instead, wilderness is subordinated to a Recreation Opportunity Spectrum factor under Recreation Analysis in the main evaluation of the Plan and FEIS and therefore reduced in importance without proper weighting of its resource values. Wilderness is a separate resource question from recreation and should not be subordinated to recreation. Analysis of roadless areas and wilderness should be a separate *fifth area of analysis* in that overall plan framework to give it the appropriate weight and consideration in the decision-making. As currently structured, the Plan and FEIS do not adequately consider the wilderness resource in that analytic framework and the analysis process leading to Plan decisions is therefore flawed from the start yielding decisions that do not sufficiently consider wilderness. We hereby appeal that process for its failure to adequately weight roadless and wilderness values.

### **C. The Record Of Decision is Inconsistent With the FEIS:**

There is a glaring inconsistency in the recommendations for wilderness designation between the Record of Decision (ROD) and the FEIS. The ROD recommends 1,412,230 acres to be designated wilderness from the College Fiord-Nellie Juan Wilderness Study Area (see ROD at Page 9) as the Preferred Alternative. By contrast, the FEIS shows a wilderness recommendation of 1,866,280 acres for the Preferred Alternative made up of lands in four roadless areas (Nellie Juan, Prince William Sound Islands, College Fiord, and Bering Lake) (See Table 3-76 in Chapter 3 FEIS at Wilderness 3-456.). This inconsistency between the ROD and the FEIS is further displayed in the detailed Inventoried Roadless Areas. The wilderness acreage and management prescriptions recommended for each area as the Preferred Alternative support Table 3-76, not the ROD (See FEIS Appendix C Roadless Areas at Page C-3 and Inventoried Roadless Areas 07 Nellie Juan, 08 Prince William Sound Islands, 09 College Fiord, and 15 Bering Lake). This inconsistency suggests a rushed last minute changed decision process for wilderness recommendations reflected in the ROD that is inconsistent with the FEIS. We appeal this flawed inconsistency in the development of the wilderness recommendations.

### **D. Roadless Area Review and Evaluation is Flawed and Inadequate**

Appendix C, Roadless Areas, in the FEIS is the heart of the roadless area review and evaluation in the Plan and the FEIS. Each of the 16 Inventoried Roadless Areas on the Chugach National Forest is first described in detail and then evaluated under three criteria

for its “Wilderness Capability”, its “Availability for Wilderness”, and the “Need for Wilderness.”

As to capability, or suitability, for wilderness designation, the Forest Service states clearly that “all of the roadless lands on the Chugach National Forest are capable of being designated as Wilderness.” (FEIS Appendix C Page C-2) Thus, all 16 Inventoried Roadless Areas totaling 5,434,710 acres, or 99% of the forest, qualify as wilderness. There can be no argument that this, our second largest national forest, is also our wildest, and the descriptions of the areas details and confirms their wilderness values. The Wilderness Attributes Rating System (WARS) used in the Roadless Area Review and Evaluation (RARE) had a maximum value of 28 for rating the wilderness quality of an inventoried roadless area. The 16 inventoried roadless areas of the Chugach were given ratings that range from 17 to 26 in that process. Arguably, they should have all been 28 on the Chugach.

The analysis of “Availability for Wilderness” is skewed away from wilderness. It approaches the Availability of Wilderness as if it were a menu of all of the non-wilderness uses and developments that an area could be used for instead of wilderness designation. There is a bias away from wilderness in this section of the analysis in the detailed Inventoried Roadless Areas that suggests many different uses for these areas without consideration of where else those uses could take place, or the relative importance of those uses compared to wilderness. A prime example is motorized winter recreation. Even with almost 95% of the public lands south of Denali National Park in southcentral Alaska now opened to motorized winter recreation, this analysis suggests such uses in many roadless areas of the forest without regard to alternatives locations outside of the Forest for such uses. This is borne out by the fact that under the Plan approximately 87% of the forest will be opened to motorized winter recreation. It is apparent that the weighting of these menus has a bias designed to favor development in the use decisions under “Need for Wilderness”.

The analysis of the “Need for Wilderness” section of the 16 Inventoried Roadless areas is uniformly disappointing and inadequate in its content and lacks sufficiency to be used to make the decisions it is used to make. To begin with, the criteria Need for Wilderness is not even addressed as such. Instead, the analysis is entitled Wilderness Evaluation and is subdivided into four parts that address nearby roadless and wilderness areas, distance from population centers, interest by proponents, and relative contribution to the National Wilderness Preservation System (NWPS). This is followed by an environmental consequences section that also details the decision for allocation of acreage to management prescriptions.

This “Need for Wilderness” analysis misses the mark in at least four major ways. First, the need is just not addressed at all. Second, both the nearby roadless and wilderness areas section and the relative contribution to the NWPS section are presented as physical boundary descriptions and have little or no evaluation of the values of these areas as contemplated by the requirements of the NFMA regulations for wilderness reviews in forest plans. Third, the values of wilderness ecosystems to the protection of Alaskan

wildlife such as brown bears and other vulnerable species is not considered in this analysis. Fourth, the decisions to allocate roadless areas to non-wilderness uses and developments are not justified in the analysis – they just appear. This section is lacking in substance, not responsive to legal requirements for wilderness reviews, and not up to reasonable expectations by the public for a legitimate consideration of wilderness values.

Two major watersheds on the Chugach National Forest vividly demonstrate examples of the Forest Service's failure to adequately address and evaluate the wilderness resource on the forest in relation to adjacent wilderness areas and make appropriate wilderness recommendations to Congress: the Kenai/Russian Rivers complex and the Copper River.

In the instance of the Kenai/Russian Rivers, the forest plan does not take sufficient cognizance and weight of the adjacent designated wilderness on the Kenai National Wildlife Refuge (NWR), separated only from the forest by the Russian River. One half of the watershed, divided by the Russian River, is designated wilderness on the refuge, yet the Forest Service chose not to address this value and opportunity. Neither does it take into account the role a combined Kenai/Chugach wilderness area would have in protecting brown bears and other vulnerable species on the Kenai Peninsula. Instead, the Forest Service has chosen not to recommend any wilderness in the Chugach on the Kenai Peninsula. There is no explanation given for this.

In the case of the Copper River, Chugach National Forest lands are adjacent to Wrangell-St. Elias National Park & Preserve designated wilderness lands that lie north of the Copper River Delta and east of the Copper River itself. The Chugach is separated from Wrangell-St. Elias only by the Copper River. Again, an opportunity to protect a critical wilderness watershed with an adjacent agency was passed up.

We appeal the wilderness evaluation of the Plan, FEIS, and ROD as inadequate and not sufficient to the requirements for its preparation.

#### **E. The Management Prescriptions in Plan Are Inconsistent with the ROD and Do Not Protect Wilderness Values**

The Forest Service represents that the Category 1, Primitive Lands Management Prescriptions will collectively provide the highest level of protection for wilderness values on the Chugach National Forest. Six Category I, Primitive Lands Management Prescriptions are described in detail in the Preferred Alternative of the Plan and evaluated in the FEIS (see Chapter 4 of Plan and Appendix J Matrix FEIS No Action Alternative and Alternatives A-F). Category I lands include the following management sub-divisions:

- 111 Primitive
- 121 Wilderness Study Areas (WSA)
- 131 Recommended Wilderness
- 132 Wild River
- 133 501(b)-Recommended Wilderness
- 135 501 (b) - 1
- 141 Research Natural Areas (RNA)

However, a seventh Management Prescription, 135 501(b)-1, was added at the ROD and in the FEIS Appendix J Matrix Preferred Alternative, but is not adequately evaluated in the FEIS. We appeal this flawed inconsistency between the ROD and the FEIS and Plan.

We have examined the Category 1, Primitive Lands Management Prescriptions displayed in the FEIS Appendix J, Management Prescription Activity Matrixes Preferred Alternative, and the allowed activities for each Management Prescription to determine their compatibility with protecting these areas for future wilderness designation and management. We conclude that no Category 1 Primitive Lands in the Plan and FEIS/ROD are afforded the full protections of roadless areas given interim protection pending future wilderness designations. All Category I lands are subject to some form of proposed management activity that would ultimately be incompatible with wilderness. The Management Prescriptions in the Plan do not really protect the future of the de facto wilderness values on the Chugach National Forest.

Specifically, the Plan Management Prescriptions allow the following activities to occur in all Category, I Primitive Lands:

- New roads built (conditionally) by others in all seven sub-divisions
- New electronic sites (conditionally) in all sub-divisions except RNA
- Administrative and permitted motorized access (conditionally) in all sub-divisions except Primitive
- Administrative facilities (conditionally) in all sub-divisions except Wild Rivers
- Personal use forest products harvest in all sub-divisions except RNA
- Minerals activities –locatable (conditionally) in all sub-divisions
- Recreational gold-panning in all sub-divisions except RNA
- USFS recreational cabins in all sub-divisions except RNA
- Hardened disbursed camping sites in all sub-divisions except RNA
- New trails in all sub-divisions except Primitive and RNA

Research Natural Areas (RNA's) are afforded the highest levels of protection under the Plan, much higher than WSA's or recommended wilderness, but even RNA's would allow new roads to be conditionally built by others and would also conditionally allow administrative and permitted motorized access.

We appeal these Management Prescriptions that do not protect the roadless and wilderness values of the Forest.

**F. The Forest Service Decision to Reduce Wilderness Recommendations is Arbitrary and Capricious:**

**1. The Public Process Does Not Support these Reductions:**

As stated above, public comment strongly supported wilderness recommendations for all three regions of the Forest. The Forest Service received more than 30,000 comments on the Chugach, which is more public comment than any previous comment period during a single planning effort has ever yielded regarding our nation's forests. Over 90% of these comments supported wilderness in all three regions of the forest, including 96% for the

Copper River Delta. Public comment also included members of the public creating GIS-based alternatives, which the Forest Service incorporated into their Draft Environmental Impact Statement (DEIS) Alternatives. A total of 30 alternatives were initially analyzed for the DEIS, 20 of which were created by members of the public, and 10 that were agency-based. Twenty-one out of the 30 alternatives recommended wilderness for the Kenai Peninsula. Additionally, out of the 17 alternatives that were created by members of the public and addressed management of the Copper River Delta, 14 alternatives recommended that a significant portion of the Delta be protected as wilderness. Thus the Forest Service has ignored public comment from both inside and outside of Alaska regarding wilderness recommendations on both the Kenai Peninsula and the Copper River Delta.

## **2. The Forest Service's Own Research Does Not Support the Reductions:**

The Forest Service in conjunction with Alaska Pacific University completed two surveys of members of Alaskan communities in and around the Chugach National Forest. Results of these surveys are included in the FEIS. Survey results regarding Special Designations include that:

- Wilderness recommendations will also be considered in the Forest Plan revision. A majority of 9 of the 12 communities (excepting Hope-Sunrise, Soldotna, and Sterling) indicate that they prefer as much as 1.7 million acres or more of the Forest be congressionally designated as Wilderness (FEIS, p. 3-540).

Additionally, the FEIS outlines that 62% of respondents supported 1.7 million acres or more of designated wilderness on the Forest (Figure 3-87: Preference for the amount of designated Wilderness, FEIS, p. 3-554). Thus, by reducing wilderness recommendations from 1.7 million acres to 1.4 million acres, the Forest Service has ignored its own research results, and defied the desires of Alaskans and citizen's of the contiguous 48 states. This is such a blatant anti-wilderness maneuver on the part of the Forest Service regarding the wildest national forest in our nation's system. We believe the Forest Service's decision to reduce wilderness recommendations on the Forest overall, and recommend no wilderness for the Kenai Peninsula or the Copper River Delta is arbitrary and capricious.

## **3. The Value of Chugach National Forest Roadless Areas Are Nationally and Internationally Significant and Would Contribute Significantly to the Wilderness Preservation System:**

The following discussions about the significance of each region of the Forest and why they should be protected and would contribute to the National Wilderness Preservation System were included in our comments on the DEIS (Attachment 3).

### **a. Copper River Delta:**

The Copper River Delta lies just east of Prince William Sound, and at 700,000 acres is the largest wetlands complex on the Pacific coast of North America. Biologists describe the Delta as one of the most important shorebird habitats in the Western Hemisphere,

supporting over 16 million shorebirds and other waterfowl. The Delta also sustains one of the most prized salmon runs in the world. The Delta has been designated a Western Hemisphere Shorebird Reserve Site and a State Critical Wildlife Habitat area. Unfortunately, development proposals threaten this area as they did when President Theodore Roosevelt established the Chugach National Forest in 1907. President Roosevelt established the forest to protect its outstanding fish and wildlife values from development proposals. Ironically, similar development plans threaten this area now. Proposals exist to build a 55-mile road across the sensitive Delta wetlands, and log and mine the area, in addition to developing oil and gas leases near Katalla. Wilderness recommendations on Forest Service lands offer one of the best opportunities to protect the Delta from these development threats. Further, the outpouring of support for wilderness recommendations on the Delta is unprecedented. Approximately 30,000 comments have been received nationwide supporting wilderness, and more than 80% of Cordovans commenting on the draft preferred alternative have supported wilderness for this area. The Copper River Delta is an area of significant national and global interest, and the Forest Service should take this into consideration as it determines what the future management direction will be for this area.

The claim, at page 3-570 of the FEIS and attributed to a single wildlife biologist on the ID team that “more protection is afforded potentially sensitive species under some [administrative] management activities [in the Copper River Delta] to improve the viability of these species...” is spurious, at best. Wilderness is the standard or model for properly functioning ecosystems and therefore is most likely to afford these species the greatest protection possible, species protection is only one of the many ecological, social and economic values that Wilderness provides.

We also reject the reasoning, expressed in the same paragraph, that the “de facto amount of ecosystem protection associated with nonwilderness prescriptions on the forest is probably higher than in other areas of the country....” Whether or not this assertion is true (the FEIS offers no evidence that it is), the protection of ecosystems on the Chugach relative to other National Forests or other areas is irrelevant to the question of whether land within the Chugach should be protected as Wilderness. Again, Wilderness protects more than ecosystems, as is demonstrated by much of the foregoing portions of the social and economic effects chapter (in which the claim appears) By the permanent, year-round, deliberate and definite nature of its designation, Wilderness provides a sure basis for sustaining the social and economic values of Wilderness. Management prescriptions that protect only some of Wilderness’ values and that don’t protect even those values all year or permanently are a poorer foundation for enhancing communities’ realization and achievement of the social and economic benefits of Wilderness.

**b. Prince William Sound:**

Eleven years after the Exxon Valdez oil spill, when nearly 11 million gallons of oil spilled into Prince William Sound, the Sound is still recovering and needs added protection. Species not recovering from the spill include: orcas, harbor seals, common loons, three species of cormorants, harlequin ducks, and pigeon guillemots. The status of numerous other species is either unknown or slowly recovering. Prince William Sound is

both ecologically productive and spectacularly beautiful, with mountains cloaked by rainforest surrounding fiords where glaciers reach down to the sea. Congress intended to protect this extraordinary environment when it created close to a 2 million acre Wilderness Study Area (WSA) in western Prince William Sound, with the passage of the Alaska National Interest Lands Conservation Act (ANILCA).

While boat and other motorized traffic increases on the Sound, the Forest Service has reduced the recommended Wilderness for the WSA in their preferred alternative from the 1984 Forest Plan. TWS does not support this reduction, and we urge the Forest Service to recommend the entire Wilderness Study Area as wilderness in the revised Forest Plan. In addition, we urge the Forest Service to recommend Knight and Montague Islands, and Jack and Sawmill Bays as wilderness to help protect species recovering from the Exxon Valdez oil spill and the Sound from large-scale industrial tourism and recreation.

**c. Kenai Peninsula:**

The Kenai Peninsula is road accessible from Anchorage and is a very popular recreation area in southcentral Alaska. Snowmachine and other motorized uses on the Kenai have increased dramatically in the past decade. Additionally, the Kenai Peninsula overall has experienced a lot of development on private lands, including subdivisions and large-scale logging. These activities have impacted brown bear habitat and population numbers. Kenai Peninsula brown bears are considered an isolated and sensitive population, and at this time their population is being closely managed for long-term viability. The Chugach National Forest provides a significant reserve on the Kenai for brown bear habitat. The Forest Service has recommended no wilderness on the Kenai Peninsula in its preferred alternative. This is not only disturbing due to the need to protect critical brown bear habitat, but it is also disturbing because 21 out of the 30 original alternatives, submitted primarily by members of the public during the revision process, included recommended wilderness for the Kenai Peninsula.

To summarize, the Forest Service's decision to reduce wilderness recommendations and recommend no wilderness for the Kenai Peninsula or the Copper River Delta is arbitrary and capricious. The public process and subsequent support for wilderness, the Forest Service's own research regarding Chugach communities, and the national and international significance of the Chugach's roadless area values all point to additional wilderness recommendations. The Forest Service's decision is not based on sound science or the public process.

**G. Forest Service Wilderness Recommendation is Primarily Rock and Ice, Does Not Sufficiently Protect Rich Ecological Areas of the Forest, and Violates the Wilderness Act:**

Approximately 65% of the recommended wilderness in the Final Plan is rock and ice, a land cover that represents only approximately 14% of the Chugach National Forest. The percentage breakdown of land-type of the recommended wilderness is as follows:

65% rock and ice  
35% water, non-forested, and forested

Out of the 35% of water, non-forested, and forested lands, 11% are non-forested muskeg, etc., and 20% are forested (Communication with Steve Hennig, ID Team Member, Recreation Planner, Chugach National Forest, May 17, 2002).

Thus, the Forest Service has failed to recommend significant ecologically rich and productive areas of the forest for wilderness designation for fish and wildlife habitat protection. The Forest Service outlines in the Forest Goals and Objectives (DEIS), that it seeks to maintain ecological sustainability by establishing, "the recommended network of Research Natural Areas that represent the range of bioenvironmental types and special ecological and geological types present on the Forest." Thus the Forest Service recognizes the need to protect a representative range of bioenvironmental types for ecological sustainability. This is precisely why the Forest Service needs to recommend for wilderness a network of wildlands that include a representative range of bioenvironmental types and special ecological and geological types present on the Forest. This is one of the purposes of wilderness designation outlined in the Wilderness Act. The Forest Service has failed to protect a viable and representative range of ecosystem-types on the forest, which is a violation of the Wilderness Act.

#### **H. Summary Conclusion – Appeal of Wilderness Review and Evaluation:**

The Chugach National Forest, in its entirety, is an extraordinary roadless forest with world class wilderness values that are worthy of protection. Nowhere else is there such an expanse of forested and marine ecosystems in a natural pristine state. The Chugach is 99% roadless, our wildest national forest in the U.S. Yet, the Forest Service significantly underplays and dismisses those wilderness values in its wilderness evaluation and Plan analysis by assigning higher values to other non-wilderness uses and development. The results of the plan are not supported by the majority of the public that commented in favor of wilderness designations for the forest. The wilderness review and evaluation fails to meet the demands of the regulations and laws governing the management of national forests and wilderness. Neither does it meet the expectations for consideration of additions to the National Wilderness Preservation System embodied in the Wilderness Act itself.

We hereby appeal the wilderness review and evaluation for the following reasons:

- The analysis process in the Plan and FEIS structure is flawed;
- The Record Of Decision is inconsistent with the FEIS;
- The Roadless Area Review and Evaluation is flawed and inadequate;
- The Management Prescriptions in the Plan are inconsistent with the ROD and do not protect wilderness values;
- The Forest Service decision to reduce the wilderness recommendations was arbitrary and capricious;
  - The public process does not support these reductions,
  - The Forest Service's own research does not support theses reductions, and

- The values of Chugach National Forest roadless areas are nationally and internationally significant and would contribute significantly to the National Wilderness Preservation System;
- The Forest Service wilderness recommendation is primarily rock and ice, does not sufficiently protect rich ecological areas of the forest, and violates the Wilderness Act.

#### **IV. Wild and Scenic Rivers:**

With respect to Wild and Scenic rivers, TWS asserts that the Forest Service failed to: 1) properly evaluate and consider "eligibility" of candidate and inventoried rivers; 2) properly consider and recommend "suitable" rivers for inclusion in the National Wild and Scenic Rivers System; (3) protect outstandingly remarkable features by arbitrarily recommending lower classifications on suitable rivers; (4) assure appropriate management and interim protection for eligible in the final plan; and (5) follow the precedent set forth by Congress in the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) and establish management boundaries of one-half mile from each side of a designated river. We incorporate by reference the appeal submitted by the Alaska Center for the Environment.

#### **V. Roadless Area Impacts:**

The FEIS contains serious inconsistencies regarding the impacts of the Revised Plan on roadless areas. In particular, the FEIS indicates that no new roads will be built for timber management during the first decade. FEIS, p. 3-411, Table 3-69a. On the other hand, the FEIS states: "Under the Preferred Alternative, 149,960 acres are in management area prescriptions that permit the Forest Service to construct roads. All of these areas are in the Kenai Peninsula. Many of these areas were allocated to these prescriptions to treat the spruce beetle epidemic. About 2,000 acres of roadless areas could be affected during the first decade" (FEIS, p. 3-402; see also FEIS, p. 3-403, Table 3-403) indicating 2,000 acres of roadless areas affected by roads in the first decade).

How can the Forest Service be planning to build no new logging roads during the coming decade, yet predict that 2,000 acres of roadless areas will be affected by new roads, primarily built to treat spruce beetle epidemic? If the answer is that "timber management" is technically different from "spruce beetle treatment," the agency is clearly misleading the public. According to the FEIS, past spruce beetle treatments in the Kenai Peninsula have included several thousand acres of timber harvest. FEIS, p. 3-138. Similarly, in the coming decade, the FEIS estimates that nearly 4,000 acres will be affected by timber management to prevent or reduce insect and disease outbreaks. FEIS, p. 3-143.

The issue of road-building in inventoried roadless areas is extremely important to many organizations and individuals. The Roadless Area Conservation Rule received far more public input than any other federal rulemaking in history. It is inexcusable that the Forest Service cannot give the public a straight answer to the question of how much road-building is planned in the Chugach roadless areas. The agency has also created prescriptions that allow roadbuilding in roadless areas, and plan to build roads at a rate of

approximately 3.2 miles/year, or 32 miles per decade. TWS opposes this, and believes the Forest Service should uphold the Roadless Area Conservation Rule standards until the agency's review of the policy is finalized.

#### **VI. Carbon Mountain Road:**

Further, with respect to road development, we believe the Forest Service's conclusion that the Carbon Mountain Road is an acceptable development even though no adequate EIS has been completed is arbitrary and capricious. Please see letter to the Forest Service explaining legal deficiencies with the easement, November of 1998, and included as Attachment 4 in this appeal.

Additionally, with respect to the Carbon Mountain road, the DEIS and FEIS both state that this easement has been "consolidated" with the state easement granted in the 1959 omnibus act. There exists an inadequacy of that easement as granted and we question how it can be consolidated.

#### **VII. Recreation and Motorized Use:**

##### **A. The forest service has not developed sufficient information or knowledge regarding recreation uses and impacts of those uses on the forest, which violates NEPA.**

The Revised Forest Plan acknowledges that there is a lack of information regarding recreation uses in the forestwide goals and objectives. For example, the Recreational Opportunities, Access and Facilities section outlined in Chapter 3 of the Revised Forest Plan lists the following goal and objective:

Goal -- Improve knowledge and understanding of recreational activity and user satisfaction

Objectives -- Develop information on recreational activities, patterns of use and key recreational issues.

(RLRMP, Chapter 3 – Forestwide Direction, p. 3-7)

For a number of years now our organizations have urged the Forest Service to develop scientifically credible information regarding recreation use patterns on the Chugach National Forest. For example, we include a letter to the USFS dated September, 1, 1999 (Attachment 1). The Forest Service has failed to do this. For example, with regard to recreational data collection, we believe that key informant interviews need to be conducted in such a way as to produce accurate results and in such a manner as to encourage participation by a broad spectrum of forest users. Further, key informant interviews should be supplemented by survey data. Without such information we believe the agency is hard-pressed to make decisions regarding recreational uses that accurately reflect the needs and desires of forest users. We also believe the Forest Service should have begun such studies prior to issuing a Record of Decision (ROD) for the Revised Forest Plan in order to be in compliance with NEPA. Without having done so, we believe the Forest Service has violated NEPA.

**B. The Forest Service's direct, indirect and cumulative impacts analysis of motorized uses on the Forest is insufficient and violates NEPA and NFMA.**

Motorized policy direction on the Forest applies to all motorized activities, including airboats, helicopters, and recreational gold panning dredges. The RLRMP states:

This direction applies to motorized recreation transportation on Chugach National Forest System lands, roads and trails using motorized equipment, including but not limited to snowmachines, off highway vehicles (OHV's), airboats operating outside of established water bodies or flowing channels, and helicopters. This direction also applies to motorized dredges, which may be used for recreational gold panning (RLRMP, p. 4-91).

The final plan also outlines that:

Lakes throughout the Forest provide access for floatplanes and rivers for jet boats and airboats (FEIS, p. 3-406).

While Forest Service ORV policy direction clearly includes, OHV's, airboats operating outside of established water bodies or flowing channels, in addition to snowmachines and helicopters, there is no direct, indirect or cumulative impacts analysis of OHV's or airboats operating outside of established water bodies or flowing channels in the final plan. This is particularly egregious, given that the Forest Service has opened a very large portion of the Copper River Delta region to all summer motorized activities, including cross-country, off-trail OHV use. OHV's are known to cause significant impacts to wetlands and other habitat types and vegetation (Attachment 1). With absolutely no direct, indirect or cumulative impacts analysis on cross-country, off-trail OHV's, including airboats operating outside of established water bodies or flowing channels, or other summer motorized uses in wetlands or other habitats, the Forest Service has violated the NEPA and NFMA.

Additionally, the Forest Service has not provided any direct, indirect or cumulative impacts analysis regarding motorized uses on lakes or rivers, which the agency states provide access for floatplanes, jet boats and airboats. Neither has the Forest Service completed any direct, indirect or cumulative impacts analysis regarding motorized uses on submerged lands in Prince William Sound, which the agency is legally mandated to do. The Forest Service is legally mandated to consider all activities on the forest and on adjacent lands and waters in their cumulative impacts analysis regarding motorized uses in order to be in compliance with NEPA. Without providing this in the final plan, the Forest Service has violated NEPA and NFMA.

Further, the brief mention of snowmachine impacts in the cumulative impacts analysis of the Wildlife section in FEIS is insufficient to meet the requirements of the NEPA. The FEIS states:

The cumulative effects of increased development, recreation, tourism, and use of the Kenai Peninsula would affect all wildlife, and the coterie of carnivores from wolf and lynx through brown bears would be affected the most. These species are dependent upon mixed and seasonal changes. Forest Service management and permitted actions will be conducted to minimize or eliminate any adverse effects on wildlife habitats consistent with human health and safety as specified in the alternatives and accompanying Revised Forest Plan, . . . (FEIS, p. 3-273).

This is the sum total of the cumulative impacts analysis discussed by the Forest Service relevant to motorized uses on the Forest and wildlife. In point of fact, the Forest Service really has not completed any cumulative impacts analysis regarding motorized uses and wildlife. It is not sufficient to simply state that wildlife will be affected from all of the uses listed in the above paragraph. The Forest Service is out of compliance with NEPA and NFMA with regards to the cumulative impacts analysis relevant to wildlife and motorized uses. Please see a more detailed discussion of this below, under the Winter Motorized Use section.

### **C. Winter Motorized Uses:**

The Final Plan has outlined that:

The general philosophy in allocating winter motorized recreation access is to open the entire Chugach National Forest for winter motorized recreation activities except where specifically closed (RLRMP, p. 4-91).

It further outlines that:

In winter (generally December 1 – April 30) with adequate snow cover, the Forest is open to over-the-snow machines, with a few exceptions (FEIS, p. 3-407).

To clarify, this winter motorized use is not on designated trails. Essentially, approximately 87% of the Chugach National Forest is open to cross-country winter motorized travel (calculated from FEIS, Table 3-68, p. 3-410). The only limits to where winter motorized travelers can go are determined by the ability and agility of the machines and their riders. Large areas of the forest are also open to winter and summer commercial helicopter use.

Additionally, the Forest Service has opened approximately 87% of the Forest to “over-the-snow” motorized recreational use without doing much of any direct, indirect or cumulative impacts analysis. Motorized use is, in fact, only briefly mentioned in the relatively short summary of cumulative impacts analysis in the FEIS (please see additional discussions of this in sections below).

In addition to the essentially forest-wide openings to “over-the-snow” machines, the Forest Service has opened large areas of the Forest to winter commercial helicopter uses. Commercial helicopter skiing (subject to permit) in the winter (some of the areas are open only before 2/15 or 3/31) has been authorized on approximately 82% of the Kenai

Peninsula and Turnagain Arm and 24% of Prince William Sound (Plan, Table 4-3, p. 4-94). A number of the areas in the Sound would be available only after Congress has acted on the Forest Service's recommendations for the Wilderness Study Area (WSA). The figures in the table for the Copper River Delta seem to be inaccurate, although it appears from the Winter Motorized Recreation Access map that a very large percentage of the Delta is open to commercial helicopter uses. As with 'over-the-snow' machines, the Forest Service has failed to complete sufficient direct, indirect and cumulative impacts analysis regarding winter commercial helicopter activities allowed in the final plan (please see additional discussion in sections below).

**1. Forest Service management decisions are biased toward winter motorized use on the Forest which violates NEPA:**

The Forest Service is managing with a bias toward motorized uses. For example, there was not a single alternative considered in the forest planning process that would have closed the entire forest to recreational snowmachine use. The FEIS states:

Winter snowmachine use is generally allowed in all alternatives. (FEIS, p. 2-36)

Winter helicopter access for heli-skiing is similar to snowmachine use. (FEIS, p. 2-37)

The only portion of the forest that is completely closed to motorized uses -- summer and winter -- is the Power Creek area in the Copper River Delta region of the Forest. This area encompasses 11,750 acres, and is a very small percentage of the entire Forest.

We believe the Forest Service is legally required to analyze a full range of alternatives when revising a forest plan, and with respect to motorized uses the agency has failed to do so. Every alternative allows for significant motorized access on the Forest. In order to analyze a full range of alternatives, the Forest Service is legally mandated to consider an alternative that would have closed the entire forest to recreational snowmachine and other recreational motorized uses. That the Forest Service failed to do this is a violation of the NEPA.

Additionally, Forest Service management bias in favor of motorized uses is not reflective of the projected trends for recreational uses on the Chugach. The FEIS outlines that snowmachine use is projected to level off completely after the year 2010, but all other recreational uses are projected to continue to increase (FEIS, Figure 3-57c, p. 3-331). For this and other reasons, it is unreasonable for the Forest Service to open 87% of the forest to winter motorized uses, without more actively planning for and managing areas for non-motorized uses.

While Forest Service information about recreational uses on the Forest is lacking, the information the agency does have does not support the strong bias toward winter motorized recreation on the forest. For example, the rate of participation by adults in outdoor recreation in Alaska is three times the national average (FEIS, p. 3-328), and is predicted to increase in the next twenty years. In other words, per capita, a much greater

percentage of Alaska's population participates in activities such as cross country skiing, backpacking and birdwatching than elsewhere in the United States. While virtually all outdoor recreational pursuits are projected to increase over the next twenty years, snowmachining is expected to level off between 2010 and 2020 (FEIS, Figure 3-57c, p. 3-331). In spite of this, the Chugach has a much greater percentage of area open to snowmachine and other winter motorized use than for non-motorized use.

In general, Bowker's model predicts that there will be little change over time in the per capita participation rate. However, the total number of people participating will change considerably due to the Alaska population growth, which is projected to be 28 percent from 2000 to 2020 (Bowker 2001). (FEIS, p. 3-332).

Table 3-56d: "Existing and projected recreation visits to the Chugach National Forest in 2010, by recreation activity," indicates that currently there are more visits to the Forest are for cross-country skiing than for snowmachining. The Table also indicates that more visits for cross-country skiing than snowmachining are projected for the year 2010. Current figures show that cross-country skiing visits total: 192, 477, vs. 164,583 for snowmachining, and projected figures for 2010 indicate that cross-country skiing visits will number 237,901 vs. 195,525 for snowmachining.

Given that the forest currently experiences and is projected to continue to experience more cross-country skiing visits than snowmachining visits, it is not reasonable that the Forest be so heavily weighted in favor of snowmachine recreation. Approximately 87% of the forest is open to recreational snowmachine use, and only small portions of the forest are managed for non-motorized winter recreation activities.

Further, snowmachining is projected to level off in the year 2010, whereas virtually every other recreational use is projected to continue to increase at a fairly strong rate (FEIS, Figure 3-57c, p. 3-331). Again, this projection does not support the motorized use management bias in the Final Plan.

**2. The Forest Service is misleading the public when it suggests that the WSA and recommended Wilderness areas are, "Closed to Motorized Use Except for Subsistence and Traditional Activities."**

The RLRMP states the following with regard to motorized uses in the Wilderness Study Area and recommended Wilderness areas on the Forest:

These areas are managed for a nonmotorized winter recreation experience in the Wilderness Study Area and Recommended Wilderness Management Areas. The use of snowmachines or helicopters is generally not allowed. The use of snowmachines for subsistence purposes by rural Alaska residents is allowed. Since these lands are managed as Conservation System Units, motorized access for traditional activities, as defined by ANILCA and Regional policy, may continue (RLRMP, p. 4-92).

The reality here is that the Forest Service incorrectly defines "traditional activities" to include recreational activities. This is clarified both in the RLRMP (p. 3-21) and in the glossary of the FEIS. Essentially, this means that every Alaskan can participate in any kind of motorized activity in these areas, as long as it involves: fixed wing aircraft, snowmachines or motor boats. The Forest Service is sorely misleading the public by suggesting that the WSA and recommended Wilderness areas generally do not allow motorized activity. (Please also see Definition of Traditional section of this appeal, which discusses this definition more in depth.)

**3. The Environmental Effects Analysis regarding Recreation and Tourism is flawed in the FEIS because it does not sufficiently analyze environmental effects from widespread snowmachine use across the forest.**

The discussion in the Recreation and Tourism section related to Environmental Effects focuses on user conflicts and noise, not on environmental effects to forest values of management decisions, such as motorized use (FEIS, p. 3-358, 9). Snowmachines have been documented to impact wildlife (Attachment 1). The Forest Service has failed to consider the full range of the studies demonstrating these impacts. The agency has also failed to meaningfully incorporate these studies into management and monitoring plans regarding wildlife.

Regarding the social conflicts and impacts to motorized uses, we incorporate by reference the appeal submitted by the Alaska Quiet Rights Coalition.

**4. The Environmental Effects Analysis in the FEIS is fundamentally flawed and violates NFMA and NEPA because it fails to analyze the direct, indirect or cumulative impacts to wolves, lynx and other potentially affected wildlife from widespread winter motorized activity on the forest, including snowmachine and commercial helicopter uses.**

To begin, the Cumulative Effects analysis in the wildlife section states right at the beginning with respect to all uses of the Forest:

The cumulative effects are similar in all alternatives. Most of the activities with the potential to negatively affect wildlife resources are beyond the scope of the Revised Forest Plan and outside of Forest Service control (FEIS, p. 3-272).

TWS questions how it can be that the cumulative effects would be similar in all alternatives, when, for example, Alternative A was a very development-oriented alternative recommending no Wilderness, and Alternative F was a very conservation-oriented alternative with the vast majority of the Forest recommended for Wilderness. It is beyond our comprehension that the Forest Service would state that all alternatives would result in similar cumulative effects regarding wildlife. This statement appears to be a fundamental and fatal flaw regarding the Forest Plan, and suggests that the Forest Service actually did no cumulative analysis of the various management directions in the differing alternatives. This statement also reveals that the Forest Service takes no

responsibility for controlling the negative impacts of its own decisions on resources that it is responsible to manage. Without such cumulative effects analysis, the Forest Service is in violation of NEPA.

## **5. Wolves:**

Specific to recreation, the FEIS states the following with regard to wolves:

Winter recreation has the potential to affect gray wolf movements and habitat use during periods of winter foraging and early spring denning. Studies of snowmobile use and wolf movement have shown that wolves tended to avoid areas of snowmobile activities in restricted use areas (USDI National Park Service 1996). Winter activities that compact snow, such as snowmobiling and cross-country skiing, provide travel routes into areas that may otherwise be inaccessible because of deep snow (Praquet et al. 2000) (FEIS, p. 3-246).

While the Forest Service admits that winter recreation has the potential to affect gray wolf behavior, it fails to analyze what the direct impacts of snowmachining may be on the wolf population in the Chugach National Forest. What exactly does, "Winter recreation has the potential to affect gray wolf movements and habitat use during periods of winter foraging and early spring denning," mean for wolves on the Chugach. The Forest Service does not indicate how it has incorporated this information into the decision-making process. Will the level of current and projected winter recreation adversely impact wolves? Will the combined impacts of winter snowmachine and helicopter use on the Chugach adversely impact Chugach wolves? We believe the Forest Service's final plan is deficient because it does not attempt to analyze the actual impacts of winter recreational management decisions in the plan with respect to wolves.

The FEIS also acknowledges that areas restricted to motorized uses on the Forest provide some of the last refugia for forest carnivores, and that motorized activity can displace wildlife species. The FEIS states:

... many of these nonmotorized areas provide some of the last bit of solitude for many wide-ranging forest carnivores. ... The alternative that emphasizes the most motorized access and subsequent increase in over-the-snow winter motorized ROS acreage, and has the greatest potential to disturb or displace wildlife species, is Alternative B ... (FEIS, p. 3-264).

Thus, while the Forest Service admits that motorized activity has the potential to displace wildlife species, the agency has done no analysis of how the current level of motorized activity impacts various wildlife species in this way. Yet, the Forest Service has opened approximately 87% of the Forest to winter motorized activity -- snowmachine, helicopter and "over-the-snow" machines; when winter is precisely the season when wildlife is most stressed due to environmental factors. Such lack of analysis of direct, indirect and cumulative impacts analysis on wildlife species is legally deficient and in violation of NFMA and NEPA.

## 6. Lynx:

Similarly, lynx are affected by snowmachining. The FEIS states the following with respect to lynx:

Snowmobiling may be particularly adverse to lynx because this activity occurs when animals are frequently in poor condition due to winter stress (Anderson 1995). (FEIS, p. 3-248)

Additionally we believe the Forest Service needs to consider other potential effects of snowmachining on lynx populations. For example, in a proposal to list lynx as threatened in the contiguous United States, the U.S. Fish and Wildlife Service considered a broader range of issues related to snowmachines and impacts to lynx. The 1999 Petition to the Forest Service (Attachment 1) outlines the following:

Lynx, a species which the Fish and Wildlife Service recently proposed to list as threatened, is also adversely affected by snowmobile use. According to the proposed rule (63 Fed. Reg. 36993):

“Snowmobile use in the Great Lakes and Rocky Mountain/Cascades regions has resulted in an increase in both human presence and the prevalence of packed snow corridors in lynx habitat. The increased snowmobile use and the increased area in which snowmobiles are used likely diminished habitat quality for lynx, and also decreases the lynx’s competitive advantage in deep snow. This results in an increased threat posed by competitors, as a result of the increase in hard-packed snow trails.”

Other ORV use and human disturbance in general can also adversely impact Canada lynx survival and habitat use. Again the proposed rule to list the lynx as a threatened species states that:

“Elevated levels of human access into forests are a significant threat to Canada lynx because they increase the likelihood of lynx encountering people, which may result in displacement of lynx from their habitats and/or possible injuries or deaths by intentional or unintentional shooting, trapping, and vehicle accidents (Hatler 1988, Thiel 1987, Brittell et al. 1989, Koehler and Brittell 1990, Brocke et al. 1991, Andrew 1992, Washington Department of Wildlife 1993, Brocke et al. 1993). Human access into Canada lynx habitat in many areas has increased over the last several decades because of increasing human populations and increased construction of roads and trails and the growing popularity of snowmobiles and off-road vehicles. In the interior Columbia River basin of Washington, Oregon, Idaho, and Montana, increased human access has decreased the availability of areas with low human activities, which are important to forest carnivores, including lynx” (U.S. Forest Service and Bureau of Land Management 1997). 63 FR 37005. (Attachment 1, pgs. 91-2)

Thus the Forest Service should consider diminished habitat quality, increased threats by competitors, elevated levels of human access, displacement, injuries and death as a result from increased access by humans in addition to what the agency has already considered with regard to lynx and widespread winter snowmachine use on the forest.

While the FEIS does acknowledge that widespread snowmachine activity may adversely impact the lynx population on the forest, there is no discussion of what the agency has done with this information to incorporate it into its decision-making process. Nor does the agency identify how it will monitor this population with respect to potential motorized activity impacts. Meanwhile, the Forest Service has also opened significant portions of the Forest to commercial helicopter use. How will this activity combined with widespread snowmachine use impact the lynx population on the forest? Again, we believe the Forest Service has failed to adequately analyze the direct, indirect and cumulative impacts of motorized activity on the lynx population within the Chugach National Forest.

#### **7. Wolverine:**

Kenai Peninsula wolverines have a unique genetic heritage, that, "cannot be replaced by recolonization of abandoned habitats by wolverines outside of the Kenai Peninsula" (FEIS, p. 3-256). The FEIS acknowledges that little is known about this carnivore throughout North America, considered one of the most rare mammals in North America (FEIS, p. 3-255). The FEIS also acknowledges that Howell identified in 1999 that wolverine populations may be declining due to over harvesting. The Forest Service then indicates that the agency does not know if the population is stable or decreasing, but feels confident that the current access will not affect the population trends, whatever they may be. The FEIS states:

Stable or decreasing the current access by humans for hunting and trapping of wolverines would not contribute to an increased loss of wolverines (FEIS, p. 3-256).

This statement is arbitrary and contradictory. Without knowing what the population trends are regarding wolverines, how can the agency state that current levels of access will not contribute to an increased loss of wolverines? Further, access for hunting and other recreational activities is projected to increase over the next twenty years (FEIS, Figure 3-57c, p. 3-331). Does the agency really believe that increased access for hunting and other pursuits throughout the life of the plan will not negatively impact the Kenai Peninsula wolverine population? If so, TWS strongly disagrees and believes that increased access for hunting and other activities, including recreational snowmachining will adversely affect the wolverine populations on the Chugach.

At this time, the Kenai Peninsula wolverine population is threatened by hunting and trapping, access from motorized activities and roadbuilding on the Chugach National Forest. The Forest Service discusses wolverines and roadbuilding on the Kenai Peninsula in the FEIS and contradicts itself in different sections. In the wolverine section of the FEIS, the document states:

Increased road building, leading to increased human access, is not planned for the Chugach National Forest portion of the Kenai Peninsula (FEIS, p. 3-256).

Yet in other sections, the FEIS outlines that roadbuilding is planned for recreation and timber restoration purposes on the Kenai Peninsula. For example, the FEIS states in the Roadless Areas section:

Under the Preferred Alternative, 149, 960 acres are in management prescriptions that permit the Forest Service to construct roads. All of these areas are on the Kenai Peninsula. Many of these areas were allocated to these prescriptions to treat the spruce beetle epidemic. About 2,000 acres of roadless lands could be affected during the first decade (Table 3-65, FEIS, p. 3-402).

The FEIS goes on to say:

As roadless areas are developed, the apparent naturalness of the area would change, as human activities would dominate small portions of a roadless area. . . . Those wildlife species that depend on large expanses of undeveloped country may be affected. Roads could fragment some areas and boundaries could be more difficult to manage (FEIS, p. 3-403, 404).

Thus, roadbuilding into remote roadless areas is planned for the Kenai Peninsula, which the FEIS acknowledges will increase human access. The Forest Service has failed to sufficiently analyze the direct impacts roadbuilding on the Kenai Peninsula will have to the wolverine population.

Furthermore, the FEIS acknowledges that snowmachine access may cause behavioral disturbance for wolverines. The FEIS states:

Human access on snowmobiles in the winter or early spring could cause behavioral disturbance. This disturbance may impair kit survival if females use less secure den sites, however, neither construction or new motorized access points nor significant changes in existing snowmachine use is planned. (FEIS, p. 3-255)

What exactly does it mean for the Kenai Peninsula wolverine population to say that, "human access on snowmobiles in winter or early spring could cause behavioral disturbance," and may impair kit survival? How has the Forest Service incorporated this information into the agency's decision-making process regarding wolverines? Will the population decline as a result of increased snowmachine access on the Forest? The Final Plan is deficient because it fails to disclose the direct impacts of increased snowmachine access to wolverines on the Forest.

The FEIS further clarifies regarding snowmachines and wolverines that:

In some alternatives, long-term benefits from increased food supply caused by prescribed fire may be partially negated by large increases in winter motorized activities, but the trade-offs are not clear. Increases in snowmachine use are not likely in the steep alpine terrain often used for denning (Magoun 1995, Golden 1996) . . . (FEIS, p. 3-256)

While the Forest Service has identified that there may be impacts from snowmachine use to wolverines it has not sufficiently analyzed the impacts of the level of winter motorized uses allowed in the Final Plan on the wolverine population.

Further, how can the USFS say that increases in snowmachine use is not likely in the steep alpine terrain often used for denning, when ten years ago no one could have predicted the maneuverability and power of today's state-of-the-art snowmachines, or the level of high marking that would result from these machines? How can the agency know that in five or more years, snowmachines won't be able to access this steep alpine terrain? High marking is on the rise all over southcentral Alaska, where the terrain permits this activity. TWS asserts that the Forest Service cannot predict where state of the art machines will go next, or how much time they will be spending in the steep alpine terrain often used for wolverine denning. Highmarking is already intruding in that steep alpine zone. We believe this is another example of insufficient analysis of winter motorized activities relative to the wolverine population.

Finally, the agency has not analyzed the cumulative impacts of new roads, increased human recreational access and activities and increased hunting and trapping pressure on the Kenai Peninsula wolverine population. The agency must complete this type of cumulative impacts analysis in order to be in compliance with NEPA.

#### **8. Moose:**

Moose numbers are declining on the Kenai Peninsula, the area of the Forest that has experienced the most development and where management actions have favored human intrusive uses, including recreation, much more so than on the rest of the Forest. The FEIS states:

Moose numbers on the Kenai Peninsula have decreased from 15,000 in 1970 to 8,000 in 2000 (Lottsfeldt-Frost 2000). Moose habitat indices indicate that there would be a slight decrease in moose habitat capability as vegetation succession moves toward closed needle leaf forest stands on the Kenai Peninsula. (FEIS, p. 3-387)

Given this downward trend regarding the moose population, it is astounding to TWS that the Forest Service continues to allow unchecked winter motorized recreation on the Kenai Peninsula, during this, the most stressful time of the year, without having ever done a single study of winter motorized impacts to moose and/or other species within the forest. Indeed, it is moose winter range that is thought to be the primary limiting factor for moose (MacCracken et al. 1997, Suring and Sterne 1988) (FEIS, p. 3-239). Winter motorized use could well be a factor among others in the population's decline, given that

snowmachines may cause displacement and create other stress factors for moose in winter. A Summary Report on the Alaska Moose Fecal Glucocorticoid Project, which analyzed stress hormones from moose fecal samples in areas with or without frequent snowmachine use demonstrates that moose in high snow-machine use areas experience significantly greater physiologic stress, on average, than moose in low snow-machine use areas (Attachment 5). Again, the Forest Service has failed to adequately analyze the direct, indirect and cumulative impacts of snowmachine and other winter motorized recreational uses, such as commercial helicopter skiing, on populations such as moose.

#### **9. Snowmachines and Air Quality:**

The Forest Service contradicts itself in statements made regarding snowmachines and air quality in the Final Plan. The agency states in one sentence that snowmachine use on the Forest will not produce any measurable effect regarding air quality, yet then acknowledges that the activity could degrade air quality in localized areas. The FEIS reads:

Snowmobile use on the Forest is widely disbursed, and under no alternative would it be expected to produce a measurable effect on air quality (FEIS, p. 3-8).

Then later states:

Snowmobile use may degrade the air quality that currently exists within localized areas of the Chugach National Forest. Localized short-term high concentrations of carbon monoxide and other pollutants would occur where snowmobiles are used. Snowmobile use would diminish the air quality in areas where high concentrations of snowmobiles assemble. These are primarily the Turnagain Pass and Lost Lake areas (FEIS, p. 3-9).

The FEIS does outline air quality related impacts that snowmachines create, including volatile organic compound and hydrocarbon emissions, and cites pollution problems that have been documented elsewhere in the country. What the FEIS fails to do is discuss the deleterious health effects that can be caused in humans and animals from these emissions. The Environmental Protection Agency, among others, have documented these health-related problems. The 1999 Petition to the Forest Service regarding ORV's (Attachment 1) outlines the following:

The operation of two-stroke engines create dangerous levels of airborne toxins including nitrogen oxides, carbon monoxide, ozone, particulate matter,<sup>1</sup> aldehydes, 1,3 butadiene, benzenes, and extremely persistent polycyclic aromatic hydrocarbons (PAH). Several of these compounds are listed as "known" or "probable" human carcinogens by the EPA. Benzene, for instance, is a "known" human carcinogen and several aldehydes including butadiene are classified as

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<sup>1</sup>Particulate matter includes dust which is generated by ORV use on unpaved roads, trails, and off-road areas. Health studies have associated particulate pollution with impaired lung function, increased emergency room visits, and increases in mortality (Kasnitz and Maschke 1996).

"probable human carcinogens." All are believed to cause deleterious health effects in humans and animals well short of fatal doses (EPA 1993). In addition, two-stroke engines also discharge 25-30% of their fuel mixture, unburned, directly into the environment (Kolman et al. 1973). Unburned fuel contains many toxic compounds including benzene, toluene, xylene and the extremely persistent suspected human carcinogen Methyl Tertiary Butyl Ether (MTBE) (Attachment 1, pgs. 93-4).

The FEIS also compares the West Yellowstone and Turnagain Pass areas, and concludes that the air quality issues are very different in the two areas. What the Forest Service fails to consider is that air quality impacts increase with increasing altitude, which is relevant to the Turnagain Pass and other areas of the forest. The 1999 Petition to the Forest Service on ORV's outlines:

In addition, the impact of CO exposure increases with increasing altitude, especially for unacclimated individuals (National Commission on Air Quality 1980). Thus, because much snowmobile use occurs at higher altitudes, risks to human health are even greater. (Attachment 1, p. 96)

However, ultimately the FEIS admits that the Forest Service has no real information about air quality issues on the Chugach, yet the agency nevertheless surmises without any information that pollution levels would be minor. It states:

While no measurement of carbon monoxide or nitrogen oxides has been undertaken within the Forest by Chugach National Forest personnel, the relatively small number of snowmobile users in the area indicates that impacts to air quality from carbon monoxide or nitrogen oxide levels generated would be minor. This diminishment of air quality would likely be below federal standards for pollution, but additional monitoring may be needed to verify that these standards are not being exceeded.

The Forest Service's perspective is that there are small numbers of snowmobile users in localized areas of the Forest. This is a subjective perspective, and one that many would not agree with. Even if there are "small" numbers of users, even small numbers of motorized users can have a very significant effect on air quality. For example, the Petition to the Forest Service regarding ORV's (Attachment 1) outlines that:

According to emissions data from the California Air Resources Board (see, <http://www.arb.ca.gov> [1/5/99]), one hour on a two-stroke engine used by most snowmobiles and jet skis, produces more smog-forming pollution than a modern car creates in one year (Attachment 1, p. 94).

If one hour on a two-stroke engine used by most snowmobiles produces more smog-forming pollution than a modern car creates in a year, there is a lot of polluting going on on the Chugach National Forest. These emissions affect all users and inhabitants of the

Forest in negative ways. The Forest Service has failed to disclose this level of impact from widespread snowmachine use across the forest in its FEIS.

TWS asserts that the Forest Service's decision to open approximately 87% of the Chugach National Forest to snowmachine use without having completed a single study on the impacts of snowmachines to air quality or wildlife on the Forest is an arbitrary and capricious decision. Further, to not even fully commit to monitor this activity for air quality -- the above statements says that "additional monitoring may be needed" -- or wildlife impacts illustrates that the Forest Service is violating its legal mandate to ensure the protection of forest values, particularly in roadless areas. Finally, no mention is made of snowmachine or other recreational motorized use emissions in the cumulative impacts analysis. Thus, the Forest Service has done no direct, indirect or cumulative impacts analysis on recreational motorized use of the forest related to air quality, even though approximately 87% of the forest is open to winter motorized use, which is a violation of NEPA.

Also, "over the snow" machines presumably allows winter cross country ATV use. However there is no analysis of the differing impacts from ATV vs. snowmachine use, with respect to snow compaction, etc., in the final plan. The Forest Service has not provided any restrictions to or analysis of impacts from "over-the-snow" machines, which the agency is legally bound to do. Varying "over-the-snow" machines will impact areas differently. For example, increased snow compaction rates from machines that have different weights and/or traction mechanisms will affect the subnivean environment and winter ecology in different ways, which in turn affect both prey and predator species. These variances need to be analyzed and potentially mitigated in order for the Forest Service to be in compliance with NEPA and NFMA.

Further, the Forest Service has not even mentioned the subnivean environment and impacts to it from winter motorized activities in the Final Plan. A study done in the Greater Yellowstone area found that:

In the winter in areas which receive snow, snowmobile use, other ORV use on snow, or trail grooming, which compacts the snow surface effectively limits the winter range of the animals, including subnivean wildlife, thereby fragmenting the animal's habitat and adversely affecting the animal's survival. Aune (1981) in his study of the impacts of snowmobiles on wildlife in Yellowstone National Park observed that both snowmobile traffic and the berm created by trail grooming inhibited wildlife crossing of the groomed trails resulting in the artificial concentration of wildlife along road areas. Bison, elk, and deer all appeared to prefer to cross the trail where the berm was absent or when snowmobile traffic was reduced. Subnivean wildlife, as previously stated, can also be adversely impacted by snow compaction caused by snowmobile use. This, in turn, could influence the number of small mammals which benefit the food web and ecology in the area.

If this use were prohibited, particularly off-road, more habitat would be available for subnivean wildlife. Fragmentation also increases the amount of "edge affected" habitat while decreasing the availability and suitability of "interior" habitat (Matlack 1993, Thompson 1994, HaySmith and Hunt 1995, Reed et al. 1996) to the detriment of species which require interior habitat (Thompson 1994, Wilcove 1985, Talberth 1997). Miller and Knight (1995), for example, found that two grassland and five forest species increased in abundance with increasing distance from trails (See also, Temple 1986, Wilcove and Robinson 1990). Hartley (1976) documented a reduction in species number, including the number of rare species, less total cover, and less flower production on a trail subject to trampling impacts in Glacier National Park compared to an undisturbed area. (Aune, K.E. 1981. Impacts of winter recreationists on wildlife in a portion of Yellowstone National Park, Wyoming. Thesis, Montana State University, Bozeman, Montana, USA) (Attachment 1, p. 61).

The Forest Service needs to consider impacts to the subnivean environment and ecology of the forest in relation to snowmachine activities in the Final Plan. The agency has failed to do so, and thus the effects analysis regarding snowmachine and other winter motorized use is deficient.

#### **D. Summer Motorized Use:**

The Forest Service has failed to complete any environmental analysis of the direct, indirect or cumulative impacts of summer motorized uses in the final plan. In particular, the area in the Copper River region north of the Copper River highway and primarily west of the Copper River open to over-land, off-trail OHV use needs to be addressed, as far as direct, indirect and cumulative impacts to wetlands, wildlife and other values of the Forest. Further, the Forest Service has opened a significant portion of the Forest to summer commercial helicopter uses. Our analysis suggests that commercial helicopter landings (subject to permit) in the summer have been authorized on about 36% of the Kenai Peninsula and Turnagain Arm and about 37% of the Copper River Delta (Plan, Table 4-4, p. 4-97). The Forest Service is legally mandated to analyze the direct, indirect and cumulative impacts of this management decision and other motorized use management decisions on forest values such as wildlife.

Additionally, the impacts analysis is flawed regarding summer OHV uses because there is no mention of summer OHV impacts to soils and/or vegetation. While the Forest Service discusses soil compaction related to foot trails, the agency fails to mention any soil compaction issues related to OHV's. This is clearly a failure of the Final Plan.

The Petition to the Forest Service regarding ORV's (Attachment 1) outlines the following, among other information, regarding soil impacts from ORV's:

Evaluating and interpreting ORV impacts involves a variety of factors including terrain topography, soil moisture content, soil substrate, plant habitat type, types of vehicle, weight of vehicles, wheel configuration, types of tires/treads (i.e., low pressure, lugs, cleats, ribbed), time of year, and the amount and timing of ORV

use (Ahlstrand and Racine 1993, Wooding and Sparrow 1979). Each of these factors may attenuate or amplify the environmental impacts of ORVs (Attachment 1, p. 30).

It further discusses:

According to the United States Geological Survey, based on an 18-month study of ORV impacts to more than 500 soils from more than 200 sites in various climatic zones and with different vegetative cover, "all soil types examined are vulnerable to ORV damage, except certain dry-lake deposits (if not driven on after a rain) and some clay-rich soils on low slopes (less than 10 degrees)" (Attachment 1, p. 31).

Clearly the Forest Service needs to consider these types of impacts from ORV's, particularly given that ORV's are allowed to travel cross-country and off-trail throughout a large portion of the forest, such as in the Copper River Delta region and for subsistence uses, among others.

#### **1. Summer Subsistence Motorized:**

The RLRMP states the following with respect to OHV's and subsistence uses:

Although discouraged, the use of OHV's or airboats for subsistence purposes by rural residents is allowed (RLRMP, p. 4-95).

It is unclear to TWS how the Forest Service discourages the use of OHV's or airboats for subsistence purposes. Further, it is unclear whether OHV's and airboats can be used only on designated trails, or if these machines can be used cross-country on the Forest for subsistence purposes. It appears that vast areas of the Forest are open to cross-country motorized subsistence uses. While TWS does not oppose access for subsistence uses, we believe the Forest Service is legally mandated to analyze and properly manage motorized uses on the Forest to ensure that forest values are not degraded. Finally, the Forest Service has done no analysis of direct, indirect or cumulative impacts analysis for these motorized uses on the Forest. Nor is there any apparent plan to monitor or manage these uses such that detrimental and/or significant impacts to Forest resources will be mitigated or avoided.

#### **E. Cumulative Effects discussion re: Wildlife and Recreation/Noise:**

The FEIS states the following with regard to noise:

... Effects of noise from potentially increased winter vehicle use and aircraft use are expected to be localized along trails and in alpine areas used for heli-skiing and heli-hiking. Helicopter activity in the alpine is typically of limited duration and occurs only on those days and in those areas where risks to human health and safety are not excessive. Accordingly, overall changes in the acoustical environment are anticipated to be negligible, but may be noticeable on a site-specific basis. (FEIS, p. 3-273)

What the Final Plan fails to do is discuss potential noise impacts to wildlife. A number of studies have found that noise can have detrimental effects to wildlife, however the Forest Service failed to include these studies in their analysis in the Final Plan. These studies have shown that, indirectly, the noise generated by ORV's, including snowmobiles, can adversely impact animals impairing feeding, breeding, courting, social behaviors, territory establishment and maintenance, increasing stress, and/or by making animal or their young more susceptible to predation (Janssen 1978, Weinstein 1978, Luckenbach 1975, Wilshire et al. 1977, EPA 1971, Bury 1980, Jeske 1985, Batten 1977, Burger 1981, Vos et al. 1985, Baldwin 1970, Rennison and Wallace 1976). According to the Environmental Protection Agency, noise acts as a physiological stressor producing changes similar to those brought about by exposure to extreme heat, cold, pain, etc. (EPA 1971). The EPA states that:

“Clearly, the animals that will be directly affected by noise are those capable of responding to sound energy and especially the animals that rely on auditory signals to find mates, stake out territories, recognize young, detect and locate prey and evade predators. Further, these functions could be critically affected even if the animals appear to be completely adapted to the noise (i.e., they show no behavioral response such as startle or avoidance). Ultimately it does not matter to the animal whether these vital processes are affected through signal-masking, hearing loss, or effects on the neuro-endocrine system. Even though only those animals capable of responding to sound could be directly affected by noise, competition for food and space in an ecological niche appropriate to an animal's needs, results in complex interrelationships among all the animals in an ecosystem. Consequently, even animals that are not responsive to or do not rely on sound signals for important functions could be indirectly affected when noise affects animals at some other point in the ecosystem. The ‘balance of nature’ can be disrupted by disturbing this balance at even one point.”

Furthermore, the EPA anticipates that the consequences of a loss of hearing ability could include a drastic change in the prey-predator situation. It states:

“The animal that depends on its ears to locate prey could starve if auditory acuity decreased, and the animal that depends on hearing to detect and avoid its predators could be killed. Reception of auditory mating signals could be diminished and affect reproduction. (Masking of these signals by noise in an area could also produce the same effect). Detection of cries of the young by the mother could be hindered, leading to increased rates of infant mortality or decreased survival rates” (Attachment 1, p. 67).

#### **VIII. Kenai Peninsula Brown Bears:**

- A. The Environmental Effects Analysis in FEIS is flawed regarding Kenai Peninsula brown bears because the discussion and rationale in the FEIS regarding brown bear protections is based on a Brown Bear**

**core prescription that prohibits utility corridors, when the final decision *does* allow utility corridors in the Brown Bear Core prescription;**

The USFS enters into a discussion in the FEIS about habitat effectiveness for brown bears on the Kenai Peninsula. It states:

Modeling suggests that past management activities have reduced habitat effectiveness for bears, not just on the Chugach National Forest, but on a large portion of the Kenai Peninsula by more than 70 percent as a result of disturbance and mortality associated with human facilities and activities (Suring et al. 1998).

Habitat components . . . were considered . . . . Also considered were the pattern and connections between landscapes. Human activities such as road access, mining operations, developed recreation, dispersed recreation, and waste disposal were also considered. (FEIS, p. 3-235)

Suring et al., considered human activities, such as dispersed recreation, when determining that 70 percent of the brown bear habitat effectiveness has been reduced. Thus dispersed recreation, such as widespread motorized use, must have an impact on brown bear habitat effectiveness. Yet, there is no mention of this in the FEIS. The FEIS does not analyze the potential environmental effects or impacts the large areas open to both summer and winter motorized use will have on brown bears.

The only mention of potential impacts comes on page 3-234 of the FEIS when the USFS states:

Conflicts could occur when snowmobile and skiing use coincides with spring bear emergence and foraging. Research shows varying effects of human use on hibernating bears.

The Forest Service goes on and cites only one study related to brown bears regarding these statements, which is hardly a comprehensive analysis of existing information regarding motorized uses and their effects on brown bears. The FEIS states:

One study in Alaska on the impact of winter sensing surveys and small fixed-wing aircraft on denning bears found none of the radio-collared bears deserted dens, and there was no evidence of mortality (Reynolds et al. 1984).

One cannot draw any conclusions, however, based on the mention of this one study in the FEIS. The FEIS does mention in a different section that:

Over 200 published and unpublished reports may be found on the subject. Review of the literature shows that aircraft overflights may cause flushing of birds from feeding or nesting areas, alteration of movement or activity patterns, decreased foraging efficiency, panic running of big game animals, decreased young survival, and increased heart rates in big game animals. (FEIS, p. 3-265)

Thus the mention of just the Reynolds study regarding fixed-wing aircraft and brown bear denning, without the mention of any of these other studies, seems misleading at best, and otherwise insufficient in its analysis of aircraft impacts to brown bears.

TWS strongly asserts that the USFS has done an insufficient and incomplete analysis of existing studies and potential direct, indirect and cumulative impacts from motorized uses on brown bears.

Further, snowmachines are not the only motorized use at issue here. Large areas of the forest, including on the Kenai Peninsula, are open or potentially open to winter and summer commercial helicopter use. Impacts to wildlife from helicopters can vary dramatically from fixed-wing aircraft, and yet, the USFS does not even mention a single study related to helicopters in this section. Again, we feel this is a very deficient part of the FEIS.

The FEIS does acknowledge that management activities pose the greatest risk of impacting brown bears on the Kenai Peninsula, where brown bears are, in fact, most at risk -- the state of Alaska has categorized the Kenai Peninsula brown bear as a species of special concern. The FEIS states:

The largest potential impact from Forest management and permitted activities is on the Kenai Peninsula. Strategies and mitigation measures are in place to protect brown bears and their habitat . . . (FEIS, p. 3-236).

This last statement is based on a prior discussion in the FEIS related to the Brown Bear Core prescription, which asserts that forest wide standards and guidelines and prescriptions are in place to protect Kenai Peninsula Brown bears. The FEIS states:

Forestwide standards and guidelines and a prescription specific for brown bears were developed during the planning process as tools to help maintain brown bear viability on the Chugach. The Brown Bear Core Area Management Area prescription limits human-bear interactions and prohibits Forest Service road construction and utility corridors. (FEIS, p. 3-235)

This last statement is, in fact, not true. The final decision *does* allow utility corridors in the Brown Bear Core prescription, and thus the Forest Service's assertion that enough protections exist within the plan to maintain brown bear viability on the Kenai Peninsula is unfounded. The USFS heard numerous times from scientists and members of the public, including TWS, who argued that utility corridors would undermine the ability of the Brown Bear Core prescription to sufficiently protect brown bears. Utility corridors effectively allow large inroads into otherwise roadless areas, which in turn increase access and human/bear interactions in otherwise remote areas of the forest. Nevertheless, the USFS decided to allow utility corridors in the Brown Bear Core prescription in the final decision. Thus the entire rationale regarding Kenai Peninsula brown bear viability

and how it is protected by the Brown Bear Core prescription and other forestwide standards and guidelines is flawed.

Additionally, the Forest Service mentions that Defense of Life and Property (DLP) kills have increased since the 1960's, and then mentions that one fall hunting season was closed as a result of this in 1995. This shows a very cursory and somewhat sloppy review of this issue on the part of the Forest Service. It is also a bit misleading, for it does not accurately reflect that number of hunting season closures that have taken place over the past seven years. Not only has the fall season been closed for the majority of the last seven years, but the Alaska Department of Fish and Game (ADF&G) also closed down the spring hunting season altogether. This year there will be no hunting season at all on Kenai Peninsula brown bears because DLP kills and vehicle collisions alone have thrust ADF&G over their management cap. DLP kills continue to increase on the Kenai, and the state is managing this population very carefully.

Additionally, the Forest Service's decision to build more roads and trails on the Kenai Peninsula than any other part of the forest poses additional risk to the brown bear population. The final plan proposes to build the most amount of trails and roads on the Kenai Peninsula of any part of the forest. Thus the part of the forest that has already experienced the most amount of human encroachment will continue to follow this trend. This management decision poses additional risk to the brown bear population on the Kenai Peninsula, and is not in the best interest of brown bear conservation. Research has demonstrated that roads and habitat fragmentation represent the most significant threats to the conservation of bears because they increase human access and bear mortality (Schoen 1990). Please incorporate by reference the appeal submitted by Audubon Alaska. The FEIS states that the preferred alternative, "Proposes the greatest amount of disturbance from trail construction on the Kenai Peninsula." (FEIS, p. 3-19) It also states that, "Road construction accounts for the greatest amount of disturbance on the Kenai Peninsula . . . ." (FEIS, p. 3-19)

**B. The FEIS does not analyze direct, indirect or cumulative impacts to brown bears from widespread motorized use on the forest, including summer motorized uses, snowmachines and helicopters, road and trailbuilding on the Kenai, and rising DLP kills.**

ORV impacts to brown bears from both summer and winter uses can be significant and need to be addressed. While most think of snowmachine impacts to brown bears as fairly benign due to winter denning patterns of brown bears, recent studies in the Greater Yellowstone Ecosystem have found that snowmachines can impact brown bears in significant ways. Information from the Greater Yellowstone Ecosystem is relevant to apply and/or compare to the Kenai Peninsula, for both areas: 1) are similar in size, are roaded and contain considerable habitat fragmentation; 2) have similar brown bear population estimates; and 3) contain brown bear populations that are at risk. The Forest Service has understood ORV impacts to brown bears in the Greater Yellowstone Ecosystem. This is evident from the following passage from the Petition to the Forest Service regarding ORV's (Attachment 1):

The potential adverse impact of ORV activities on the grizzly, for example, is clearly reflected in a 1994 out-of-court settlement agreed to by the USFS and the Greater Yellowstone Coalition. Pursuant to this settlement, the USFS agreed to study its road density, consider closing roads and ban summer cross country driving in more than 300,000 acres of bear habitat. In its 1997 revised forest plan, the Targhee banned clear-cutting and all motorized travel in 59,000 acres of grizzly bear "secure" areas. In addition, it announced that 400 more miles of logging roads and ORV trails would also be closed (Wilkinson 1999).

While direct snowmobile impacts on grizzlies are limited due to grizzly denning during the peak period of snowmobile use,<sup>2</sup> recent scientific studies have made it clear that indirect impacts are adversely affecting grizzlies. Indirect impacts result from the altered distribution and movement patterns of large ungulates, particularly bison and elk, caused by snowmobile trail use. This leads to a subsequent decrease in the availability and accessibility of critical grizzly food sources, namely carrion.<sup>3</sup>

For grizzlies, winter-killed carrion is "an important source of protein" during the crucial bear feeding time in the late winter and early spring after den emergence (NPS\YNP 1990; Knight et al. 1984) (Attachment 1, p. 89).

Thus ORV impacts can be significant for brown bears, particularly those that are at risk, such as the Kenai Peninsula brown bear population. The Forest Service has failed to address the direct, indirect and cumulative impacts to brown bears on the Chugach from widespread motorized use on the forest, including summer motorized uses, snowmachines and helicopters, road and trailbuilding on the Kenai, and rising DLP kills.

Finally, TWS does not believe the Forest Service has made management decisions that will protect brown bear viability for the long term on the Kenai Peninsula. We assert this because the USFS has: 1) allowed utility corridors in the Brown Bear Core prescription; 2) not recommended any wilderness for the Kenai Peninsula; and 3) allowed widespread motorized use on the Kenai, including snowmachines and helicopters, and done no environmental analysis of the direct, indirect, or cumulative impacts to brown bears of this management action.

## **IX. Water:**

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<sup>2</sup>Knight (1976) documented at least one incident where snowmobiles may have disrupted a denning grizzly bear causing the bear to relocate to a second den site. Impacts to denning bears have likely increased in recent years due to improvements in snowmobile technology which has created machines which can travel further, faster, and which are more powerful than snowmobiles in the past. As a result, areas which previously were inaccessible to snowmobiles, including areas used by grizzly bears for denning, have now become accessible.

<sup>3</sup>Air pollution impacts to Park vegetation may be another indirect effect of snowmobile use on grizzlies. These impacts may affect all components of the food chain, including grizzly bears and other threatened and endangered species, as a result of bioaccumulation of toxins in Park herbivores (See Shaver et al. 1988).

The Revised Forest Plan has failed to plan for or make management decisions regarding water bodies, such as lakes, streams and rivers on the Forest. This is a violation of NEPA. For example, the FEIS states:

“The Revised Forest Plan is a management plan for upland uses. We recognize that there are several issues related to uses and activities on waters with the Forest. At this time, we are not identifying any management direction for use on water within the Forest.” (FEIS Appendix K, p. K-18)

The Forest Service is legally mandated to manage forest values across the forest, including waters within the boundary of the forest, and analyze impacts to forest values from activities within and adjacent to the Forest. The Forest Service has failed to do this in the final plan, and therefore is not in compliance with the NFMA or NEPA.

By ignoring the waters within the Chugach National Forest boundary, the Forest Service has managed to remain quiet on jet ski use within the Forest. We believe the Forest Service must provide management direction for this type of use on water bodies within the Forest boundary. Further, the Forest Service needs to analyze the impacts of motorized uses on waters within the Forest. It is incongruous, that the Forest Service would be issuing commercial use permits, as the agency did this year, for example, related to motorized uses on rivers in the Copper River region, without needing to analyze impacts from those uses. The Forest Service is shirking its legal responsibility to properly manage these types of uses. The FEIS is deficient in that it does not address these uses at all.

There are impacts from motorized uses on waters, particularly from jet skis and airboats, which need to be addressed. For example, the Petition to the Forest Service regarding ORV's (Attachment 1) outlines the following regarding polycyclic aromatic hydrocarbons (PAHs):

PAHs are by-products of fuel combustion found in high concentrations in unregulated two-stroke emissions. They are particularly hazardous because they are both carcinogenic and mutagenic, and are extremely persistent in the environment. Studies by the Tahoe Regional Planning Agency (1997) have shown that PAHs can remain on the surface of the water, where fish and other species feed on phytoplankton and zooplankton. Heintz et al. (1998), in their nine year study on the Exxon Valdez spill in Alaska, documented stunted salmon growth and reproductive problems from PAHs and may have adverse effects on long-term species survival and reproduction. Of further concern, Oris (1998) and Giesy (1997) found that PAHs at extremely low levels (parts per trillion) are toxic to zooplankton, and inhibit not only zooplankton reproduction, but also the reproductive success and general growth of fish. Moreover, natural ultraviolet light can increase the toxicity of PAHs on water surfaces by as much as 50,000 times under field conditions (Giesy 1997).

The findings of these studies also correlate to studies on snowmobile emissions. In a study of snowpack contamination by snowmobiles, for example, Matthew R. Graham of the University of Nevada-Reno found elevated readings of four PAHs -- acenaphthene, acenaphylene, naphthalene and phenanthrene -- in snow samples under field conditions. Graham detected levels of naphthalene, for instance, of up to 12,000 ppb. According to the Occupational Safety and Health Administration (OSHA), the short-term human exposure limit (STEL) for naphthalene is 15,000 ppb. OSHA's Health Hazard Data indicates that "contact may cause skin or eye irritation ... inhalation may cause headache, nausea and perspiration ... [and] ingestion may cause cramps, nausea, vomiting and diarrhea" (OSHA 1996).

Such high concentrations are particularly alarming for fish larvae, zooplankton, and perhaps other marine organisms. During an industry study, however, Oris (1998) found that much lower PAH levels (5-70 parts per trillion compared to Graham's detections of 12,000 parts per billion) cause "a significant effect on fish growth ... photo-activated toxicity to fish and zooplankton as well as direct (no-UV) toxicity to zooplankton." Giesy (1997) determined that only 19 ppb of another PAH compound (anthracene), under relatively low ultraviolet intensity (2,500 uw/cm<sup>2</sup> of UV-A), would kill all exposed zooplankton in 30 minutes. Furthermore, Heintz et al. (1998) concluded that sublethal levels of water contamination (as low as 1.0 ppb) stunted pink salmon growth, may fail to protect fish embryos, and caused other chronic problems (Attachment 1, p. 99-100).

#### **X. Changes in Prescriptions and Alternatives:**

In comparing the prescription matrixes from the -- DEIS to FEIS to RLRMP -- it is clear that significant changes were made. Additionally, there are discrepancies between the FEIS Activities Matrix and the RLRMP Activities Matrix. This poses some significant problems and deficiencies within the analysis provided on various subjects in the FEIS, because that analyses is often based upon the activities matrix included in the FEIS and not in the RLRMP. See discussion of this under Kenai Peninsula brown bears above, for example.

As for significant changes, there were two entire prescriptions that existed in the DEIS that are deleted in the RLRMP. The deleted Prescriptions are Backcountry Motorized and Developed Recreation Reduced Noise. There are also some key categories in the Activities Matrix regarding the Prescriptions that existed in the DEIS that are deleted in the FEIS. These deleted categories include: OHV/Motorized Recreational Use -- Summer; OHV/Motorized Recreational Use -- Winter; Motorized Access for Subsistence; SUP Helicopter Landings -- Winter; SUP Fixed Wing Flightseeing Landings.

Essentially the Forest Service removed the prescriptions related to motorized use, and removed the motorized categories of activities in the Activities Matrix all together. While the agency removed the motorized categories in the FEIS matrix, they retained the Non-motorized Recreational Use categories in the matrix. This demonstrates that the Forest Service is operating from a position that the Forest is open to motorized use until closed, and that non-motorized recreational use is actually an activity to be managed.

This is a significant shift in management direction. This divergence, which is substantially different from what the public's understanding was of the process and the prescriptions as they appeared in the DEIS, violates NEPA because the public was not able to comment on the actual final intent of the plan.

Additionally, the 'Backcountry' prescription, which originally was non-motorized, is now motorized. The Recreation Opportunity Spectrum (ROS) for backcountry changed from Semiprimitive Nonmotorized (SPNM) in the DEIS to Semiprimitive Motorized (SPM) in the FEIS. Another striking change along these lines is in the 'Wild River' prescription, which changed in the same way.

**A. The Environmental Effects Analysis regarding Recreation and Tourism is flawed in the FEIS because it does not sufficiently analyze environmental effects from the Backcountry Prescription:**

Contrary to the DEIS Backcountry Prescription, the FEIS Backcountry Prescription with a Semi Primitive Motorized (SPM) ROS cap allows motorized use, small lodges and group sizes of 100 (FEIS 4-34 and Appendix J-1). Not only do the FEIS and RLRMP fail to analyze the indirect, direct and cumulative impacts of this level of activity but also the application of the Backcountry Prescription in the FEIS contradicts the ROD.

For example, page nine of the ROD identifies two areas in Prince William Sound, one at the north end of Esther Passage and another on Glacier Island, for large recreational group facility development under the "Backcountry Group" prescription. The ROD specifically states that development for large groups is limited to these two nodes in PWS. This claim is disingenuous and misleading. There is nothing limiting the Forest Service from authorizing other development and/or large 100 person hardened sites under the auspices of the revised category 2, Backcountry Prescription that covers a significant portion of PWS. Secondly, the Semi Primitive Groups (SPG) ROS is not a national ROS standard. In creating a new ROS class the Forest Service has the responsibility to be even more diligent in analyzing the impacts associated with its application.

Based on the contradictions and lack of analysis and subsequently violation of NEPA, the Forest Service should change the Backcountry Description back to the originally intended Semi Primitive Non-Motorized ROS with no allowance for small lodges.

**B. 501(b) - 1**

The 501(b) - 1 prescription also drastically changed from the DEIS to the RLRMP. Fifteen categories in the Activities Matrix have been altered in the final plan, and all but one for the worse. This prescription can no longer be considered similar to Wilderness. It is, in fact, so different that, we believe, the public would have commented differently regarding this area had they been aware of the changes prior to the final decision. For example, there is a change in title from, "501(b) - Recommended Wilderness" in the DEIS to "501(b) - 1". The whole concept of wilderness is gone from the title. Further, the activities allowed in 501(b) - 1 are much less restrictive. For example, 'Personal Use Timber Harvest' was a 'No' in the DEIS and is a 'Yes' in the RLRMP, and 'Minerals Activities Salable' went from a 'No' in the DEIS to a 'Yes' in the FEIS. Please refer to Attachment 2 for a side-by-side analysis of the prescriptions.

The 'Brown Bear Core' prescription also changed as discussed above in the Kenai Peninsula brown bear section. The Forest Service ultimately allowed utility corridors in the prescription. Biologists and concerned members of the public have argued that allowing utility corridors in this prescription, renders this prescription fairly meaningless as far as bear conservation and protection. In the DEIS utility corridors were conditional, and in the RLRMP they are a 'Yes'. However, in the FEIS Activities Matrix, utility corridors are a "No" (again, please see discussion above). This discrepancy between the FEIS and RLRMP makes the FEIS analysis regarding Kenai Peninsula brown bears flawed and insufficient. One of the most striking changes to the Brown Bear Core prescription is the ROS class, which has changed from Semiprimitive Nonmotorized to Roaded Natural. Other changes to this prescription are outlined in Attachment 2.

TWS asserts that the difference in approach in prescriptions from the DEIS to the RLRMP, such as: 1) combining the Backcountry Non-Motorized and Backcountry Motorized; 2) omitting the Developed Recreation Reduced Noise prescription; and 3) altering prescriptions such as 501b-Wilderness to 501b-1 and the Brown Bear Core prescription, among others, are so significant that the public did not understand or have the opportunity to comment on these differences.

## **XII. Definition of "Traditional":**

Section 1110A of the Alaska National Interest Lands Conservation Act (ANILCA) allows for the use of snowmachines, motorboats and fixed-wing aircraft for traditional activities and for travel to and from villages and homesites in Conservation System Units (CSU's). While ANILCA does not specifically define traditional activities, a definition can be discerned from the structure of ANILCA and its legislative history. The final Forest Plan implements a definition of traditional activities found in the Forest Service Manual for Region 10 (effective 1/27/99). The Forest Service defines traditional activities to include recreational activities. Thus the Forest Service has been and will continue to manage under the guise that recreational snowmachine use is a traditional activity. We strongly disagree with this definition.

The National Park Service has promulgated a rule that defines "traditional" as the following:

A traditional activity is an activity that generally and lawfully occurred in the Old Park contemporaneously with the enactment on ANILCA, and that was associated with the Old Park, or a discrete portion thereof, involving the consumptive use of one or more natural resources of the Old Park such as hunting, trapping, fishing, berry picking or similar activities. Recreational Use of snowmachines was not a traditional activity.

This definition was codified at 36CFR Section 13.63 (h)(1).

We have urged the Forest Service to implement a definition similar to the National Park Service definition of traditional activities, which was defined in relation to the original

portion of Denali National Park. We believe this definition is in keeping with the intent of Congress when ANILCA was enacted. Thus far, the Forest Service has not heeded our request.

### **XIII. Submerged Lands:**

TWS believes the final plan is deficient because it does not adequately address the management of and impacts to the tidelands and submerged lands within the Chugach National Forest Boundary. We believe, as the Forest Service has recognized, that the tidelands and submerged lands within the proclamation boundary of the forest are part of the Chugach National Forest and thus the Forest Service needs to assert jurisdiction and manage these lands. The Forest Service has signed a Memorandum of Understanding (MOU) with the State of Alaska to manage the submerged lands within the Chugach National Forest boundary, and thus the Forest Service has waived responsibility of analyzing activities within the tidelands and submerged lands boundary. We assert that the lack of inclusion and consideration of tidelands and submerged lands in the Forest Plan revision process violates the National Forest Management Act (NFMA) and the National Environmental Policy Act (NEPA). We believe the Forest Service will need to address tidelands and submerged lands in a supplemental EIS in order to meet the requirements of NFMA and NEPA. Management of the tidelands and submerged lands of the forest cannot be ignored, due to the future increases in large-scale tourism and recreation projected for the forest.

### **Request for Relief:**

We request that the Forest Service complete a Supplemental EIS and ROD that: 1) address all of the FEIS's statutory and legal flaws identified in this appeal; and 2) that protect the resources and values of the entire Chugach Forest, such as Alternative F in the DEIS. Public support, Forest Service research and the nationally and internationally significant roadless areas and wilderness values of the forest support this management direction.

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